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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,374	03/16/2006	Kaoru Hoshide	062278	9854

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WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

EXAMINER
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KELLY, CATHERINE A

ART UNIT	PAPER NUMBER
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3634

NOTIFICATION DATE	DELIVERY MODE
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08/05/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,374	<b>Applicant(s)</b> HOSHIDE ET AL.	
	<b>Examiner</b> CATHERINE A. KELLY	<b>Art Unit</b> 3634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6084367 to Landert in view of US patent 4697383 to Hagiwara and US patent 6914401 to Smelka. The automatic door apparatus of claim 1 is shown in the '367 reference in figures 1-3d where a pair of doors 3, 8, 7, 7a, and 4 opening and closing by moving on a same vertical plane (planes 3-8, 7-7a, and 4); a pair of moving device 36 for moving the pair of doors individually; controller portion of higher-order controller 47 as further taught in column 6 lines for controlling the pair of moving device; a pair of two-dimensional image sensors 29 for detecting a moving object at both sides of the pair of doors as further taught in column 2 lines 30-36; wherein the controller 47 includes: moving status calculator for calculating a position and a moving direction of a moving object by image processing of outputs of the two-dimensional image sensors as

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taught in column 3 lines 1-5 and 13-14 and column 6 lines 51-55; opening degree calculator predicting a passing position of the moving object on the vertical plane on the basis of the position and moving direction of the moving object calculated by the moving status calculator and calculating a target opening degree of each of the doors on the basis of the predicted passing position when the moving object approaches as taught in column 2 lines 30-36 and 59-64, column 3 lines 1-5 and 13-14, and column 6 lines 51-55, and determining the target opening degrees of the doors in fully closed state when the moving object moves away as taught in column 3 lines 3-5; first move command unit portion of higher-order controller 47 as further taught in column 6 lines 39-50 for outputting move command signals to the pair of moving means so that the doors may be opened to the calculated target opening degrees.

The '367 reference teaches a secondary command unit in column 7 lines 1-16 where the doors 3, 4, 7, 7a, and 8 can be commanded open or closed by means other than first command means 47.

However, the second command unit of the '367 reference does not output a signal if the moving status calculator cannot calculate.

The auxiliary secondary sensor unit is taught in the '401 reference in column 1 lines 60-67 and column 2 lines 1-12 where for each sensor transmitter and receiver, there is also a second auxiliary transmitter to check the output and notify of error and allow for alternate control.

However, neither the '367 nor '401 reference teaches secondary command means fully opening and closing the doors connected to a second set of sensors.

A set of sensors fully opening and closing a pair of door is taught in the '383 reference in figures 1-6 where door frame 1 has an opening 3 covered by a pair of doors 2 and the opening and closing of the doors is done by controller 9 based on the output of sensors 5, 6, 7, and 8 as further taught in column 3 lines 5-11.

One of ordinary skill in the art would be motivated to provide the automatic door system of the '367 reference with a second auxiliary system as in the '401 reference and a full open/close sensor as in the '383 reference because the alternate control of the doors can sometimes be desirable as taught in the '367 reference in column 7 lines 1-16 and the auxiliary system of the '401 reference allows for alternate control based on initial control error which can lower the overall door operation error rate and, in keeping with such a back-up or auxiliary system, the fully open/closed can allow for a simpler auxiliary system than the initial control system to lower overall system costs as opposed to a more complicated auxiliary system with full door controls.

Regarding claim 3, the plural target opening is shown in figure 3d of the '367 reference and further taught in column 7 lines 35-49.

Regarding claim 4, the speed calculating is taught in column 3 lines 6-10 of the '367 reference.

Claims 5 and 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6084367 to Landert in view of US patent 4697383 to Hagiwara and US patent 6914401 to Smelka. The '367 reference is silent in regards to the dual detection zones of claims 5 and 6. These are shown in the '383 reference in figure 3 where doors 2 have first zone B and B' farther from the doors 2 and second zone A and A' adjacent

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to the doors and dual zone control further taught in column 3 lines 15-47. One of ordinary skill in the art would be motivated to provide the automatic door system of the '367 reference, in combination with the auxiliary system of the '401 reference and the full open/close second control of the '383 reference, with the dual zone control of the '383 reference because the dual zone control allows for easy determination of the moving direction and path of an object approaching a door system and thus can allow for easy control without unnecessary opening or closing.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1 and 3-6 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CATHERINE A. KELLY whose telephone number is (571)270-3660. The examiner can normally be reached on Monday through Friday 9am - 5:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Mitchell can be reached on 571-272-7069. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. A. K./  
Examiner, Art Unit 3634

/Katherine W Mitchell/  
Supervisory Patent Examiner, Art  
Unit 3634

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